Application No.: 10/034,030 **Docket No.: JCLA8482**

AMENTMENTS

In The Claim:

Please amend the claims as follows:

1. (currently amended) A method of fabricating a ceramic substrate, wherein the method comprises:

providing a plurality of green tapes;

forming a plurality of conductive openings and thermal conductive openings passing through the green tapes;

after forming the conductive openings and the thermal conductive openings, filling a metal paste into the conductive openings and the thermal conductive openings;

after filling the metal paste into the conductive openings and the thermal conductive openings, stacking the green tapes together, wherein the metal paste inside the conductive openings of every green tape is in contact with [[~~its~~]] neighboring metal paste within the conductive openings of the green tapes, the metal paste inside the thermal conductive openings of each green tape is in contact with [[~~its~~]]the neighboring metal paste inside the thermal conductive openings;

after stacking the green tapes together, cofiring [[~~those~~]]the green tapes and the metal paste to form a pre-substrate, wherein the pre-substrate comprises an insulating structure, a plurality of thermal conductive plugs and conductive plugs, the insulating structure is formed by cofiring the green tapes so that a plurality of conductive plugs are formed by cofiring the metal

paste in the conductive openings and a plurality of thermal conductive plugs are formed by cofiring the metal paste inside the thermal conductive openings, the pre-substrate further comprises a top surface and a bottom surface;

performing a planarization process after cofiring the green tapes and the metal paste;

forming a first metal film on the top surface of the pre-substrate;

forming a second metal film on the bottom surface of the pre-substrate;

patterning the first metal film to form a plurality of die pads and conductive traces, the die pads in contacted with the thermal conductive plugs and the conductive traces in contacted with the conductive plugs;

adhering a plurality of chips on the die pads; and

electrically connecting the chips to the conductive traces.

2. (previously presented) The method of claim 1, wherein a machine punching method is utilized to form the conductive openings and the thermal conductive openings passing through the green tapes.

3. (original) The method of claim 1, wherein a stencil printing method is utilized to fill the metal paste into the conductive openings and the thermal conductive openings.

4. (original) The method of claim 1, wherein a method of forming the first metal film comprises a sputtering deposition or an evaporation method.

5. (original) The method of claim 1, wherein a method of forming the second metal film comprises a sputtering deposition or an evaporation method.

Claim 6. (Canceled)

7. (previously presented) The method of claim 1, wherein the planarization process is carried out to planarize the top surface of the pre-substrate by a polishing method.

8. (previously presented) The method of claim 1, wherein the planarization process is carried out to planarize the bottom surface of the pre-substrate by a polishing method.

9. (previously presented) The method of claim 1, wherein a flat insulating layer is formed on the top surface of the pre-substrate during the planarization process, and a plurality of openings are formed through the insulating layer to expose the conductive plugs and the thermal conductive plugs.

10. (previously presented) The method of claim 1, wherein a flat insulating layer is formed on the bottom surface of the pre-substrate during the planarization process, and a plurality of openings are formed through the insulating layer to expose the conductive plugs and the thermal conductive plugs.

Claim 11. (cancelled)

12. (previously presented) The method of claim 1, wherein photolithographic and etching techniques are used to pattern the first metal film.

13. (currently amended) The method of claim 1, wherein the pre-substrate further comprises a plurality of aligning-mark holes, which are formed [[~~like~~]]as cavity-shaped holes and are used to align a mask layer to the pre-substrate.

14. (previously presented) The method of claim 13, wherein a fabricating method of the aligning-mark holes, comprising

forming a plurality of aligning holes passing through at least one of the green tapes while forming the conductive openings and the thermal conductive openings passing through ~~on~~ the green tapes;

stacking together with the green tapes with the aligning holes, going with the aligning holes aligned with each other, and stacking together with the green tapes without the aligning holes while stacking the green tapes together; and

forming the aligning-mark holes from the aligning holes after cofiring the green tapes and the metal paste.

Claims 15-25 (canceled)

26. (currently amended) A method of fabricating a ceramic substrate, comprising:

providing a plurality of green tapes;

forming a plurality of thermal conductive openings passing through the green tapes;

after forming the thermal conductive openings, filling a metal paste into the thermal conductive openings;

after filling a metal paste into the thermal conductive openings, stacking the green tapes together, wherein the metal paste inside the thermal conductive openings of the green tapes is in contact with [[~~its~~]] neighboring metal paste inside the thermal conductive openings;

after stacking the green tapes together, cofiring [[~~those~~]]the green tapes and the metal paste to form a pre-substrate, wherein the pre-substrate comprises an insulating structure, at least a thermal conductive plug, the insulating structure is formed by cofiring the green tapes and the thermal conductive plug is formed by cofiring the metal paste inside the thermal conductive openings;

performing a planarization process after cofiring the green tapes and the metal paste;

forming a metal film on the pre-substrate; and

patterning the first metal film to form at least a die pad, and the die pad is in contact with the thermal conductive plug.

27. (previously presented) The method of claim 26, wherein a machine punching method is utilized to form the thermal conductive openings passing through green tapes.

28. (previously presented) The method of claim 26, wherein a stencil printing method is utilized to fill the metal paste into the thermal conductive openings.

29. (original) The method of claim 26, wherein a method of forming the metal film on the

pre-substrate comprises a sputtering deposition or an evaporation method.

Claim 30. (canceled)

31. (previously presented) The method of claim 26, wherein the planarization process is carried out to planarize the pre-substrate by a polishing method.

32. (previously presented) The method of claim 26, wherein a flat insulating layer is formed on the pre-substrate during the planarization process, and at least an opening is formed through the insulating layer to expose the thermal conductive plug.

Claim 33. (cancelled)

34. (previously presented) The method of claim 26, wherein photolithographic and etching techniques are used to pattern the first metal film.

35. (currently amended) The method of claim 26, wherein pre-substrate further comprises a plurality of aligning-mark holes, which are formed [[~~like~~]]as cavity-shaped holes and are used to align a mask layer to the pre-substrate.

36. (previously presented) The method of claim 35, wherein a fabricating method of the aligning-mark hole, comprising

forming a plurality of aligning holes passing through ~~on~~ at least one of the ~~a~~ green tapes while forming the thermal conductive openings passing through the green tapes;

stacking together with the green tapes with the aligning holes, going with the aligning holes aligned with each other, and stacking together with the green tapes without the aligning holes while stacking the green tapes together; and

forming the aligning-mark holes from the aligning holes after cofiring the green tapes and the metal paste.

Claims 37-49 (canceled)

50. (new) The method of claim 1, wherein a maximum width of the thermal conductive opening is approximately between 20 milli-inches to 40 milli-inches.

51. (new) The method of claim 26, wherein a maximum width of the thermal conductive opening is approximately between 20 milli-inches to 40 milli-inches.